Name of the work : Improvements to roads Drains anf other Devlopmental Works in Maruthinagara Ward No 01 Under SWM Head in Chief Nava Nagarottana Grants of Yelahanka Division Package - 05

Contractor/Agency : M/S Benaka Developers and Projects Pvt Ltd

Name of the Client : Executive Engineer,
Yelahanka Division
BBMP, Bangalore-92

Estimated Cost : Rs 1000.00 Lakhs

Status of Bill : 1st and Part bill

In the Presence of : (a) Mr. Mallinath
Assistant Engineer, BBMP, Bangalore.
: (b) Mr. Rajanikanthmalli
Assistant Executive Engineer, BBMP, Bangalore
: (c) Mr.Harish R K, Site Engineer
M/s Tejus Consultants

SL NO	Description of Item	Comments/observation
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301 (I No-19.14,P No-143)	Work done up to the billed quantity and quality is satisfactory
2	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 Page No.3.6	Work done up to the billed quantity and quality is satisfactory
3	KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specifications. MORTH Specification No. 301 KBS Page No.144 It No.19.2	Work done up to the billed quantity and quality is satisfactory

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4	KSRB 4-1.7 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 It No.4.7	Work done up to the billed quantity and quality is satisfactory
5	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and sown size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compcted for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete execluding cost of steel as per MORTH specification no. 1500, 1700, 2200 including cost of material labour HOM complete as per specification. (P.No.270, I.No.37.59.1	Work done up to the billed quantity and quality is satisfactory
6	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications.Specification for TMT bars Fe 500(Page No-229. INo.28.8.2 2018-19)	Work done up to the billed quantity and quality is satisfactory
7	Removing and Refixing of stone slabs of drains and poiting in CM(1:3) Page No.27 It No.5.33	Work done up to the billed quantity and quality is satisfactory
8	Providing and fixing precast cover slab made out of CC 1:2:4 with 10cm finishing cutting including form work,cost of all materials,labour hire charges of chinery loading and unloading lead and lift transportation etc, complete (Data rate)	Work done up to the billed quantity and quality is satisfactory
10	Removing and resetting of kerb stones Page No.270 It No.37.57	Work done up to the billed quantity and quality is satisfactory
13	KSRRB M600-1. Construction of dry lean cement concrete mix CC1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No. 601 of MORTH V Revision and IS 456 Table-5 22.1.1-do-with OPC at 150kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using concrete batch mix plant at 75 Cum/hr capacity with slip farm layer with electronic sensor.	Work done up to the billed quantity and quality is satisfactory

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14	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46um,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications. -do- with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum.	Work done up to the billed quantity and quality is satisfactory
	BOREWELL	
28	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Geophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction (P.47, I. 9.4) PRED.SR 2012-13	Work done up to the billed quantity and quality is satisfactory
29	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,)Page no. 46 / I. 9.1 PRED SR 2012-13- (0-50m)	Work done up to the billed quantity and quality is satisfactory
	50.00 to 100.00 Mtr 100.00 to 150.00 Mtr 150.00 to 200.00 Mtr 200.00 to 250.00 Mtr 250.00 to 300.00 Mtr 300.00 to 350.00 Mtr	Work done up to the billed quantity and quality is satisfactory

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30	Supply of nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) SE PRED III NO 84, PRED 12-13 SR)	TEJUS CONSULTANTS Work done up to the billed quantity and quality is satisfactory
31	Providing and fixing 250mm dia PVC Pipe and as per specifications and directions(BWSSB SR 16-17 PNO 57 SL NO 11)	Work done up to the billed quantity and quality is satisfactory
32	175mm dia M.S Casing Cap (P.No.iii. It No-85,PRED 12-13 SR)	Work done up to the billed quantity and quality is satisfactory
33	Supply of 175mm dia M.S Collors Each (P.No.iii. It No-86,PRED 12-13 SR)	Work done up to the billed quantity and quality is satisfactory
34	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings . 15HP/11KW 25 Stage (PAGE NO XLII It No.41, PWD SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
35	Providing, laying and jointing GI pipes confirming to IS specification of approved makes with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead and threads for the joints wherever necessary as per direction including all lead and lift etc., coplete'A' grade(excluding cost of fittings) 50mm dia GI pipe(PWD SR 2018-19, Page No.92 It No.13.6)	Work done up to the billed quantity and quality is satisfactory
36	Supply of 50mm MS collars	Work done up to the billed quantity and quality is satisfactory
37	Supplying and drawing 3 core PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts 4 sqmm of 56 strands 0.3mm dia.(P No.536 It No.30 (c) GROUP-A. BWSSB 13-14 SR)	Work done up to the billed quantity and quality is satisfactory

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